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CURRICULUM PLANNING AND DEVELOPMENT

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Curriculum Planning and Development

Reviews the literature for the three-year period since the issuance
of Vol. XXIV, No. 3, June 1954

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This issue of the REVIEW was prepared by the Committee on
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INTRODUCTION

RESEARCH on the general aspects of curriculum planning and development is analyzed in this issue of the REVIEW. Research reported during the period since the publication of the June 1954 issue (Volume XXIV, No. 3) entitled "The Curriculum: Organization and Development" is included. However, since several topics included in this issue were not previously reviewed, some studies published prior to January 1954 are listed.

Since curriculum planning is a broad and comprehensive undertaking, the committee for this issue has endeavored to review research in a number of broad aspects of the subject. At the same time the committee has attempted to avoid duplication of other recent issues dealing with specific phases of the curriculum.

Analyzing research in the curriculum area is indeed a difficult assignment. Ultimately, decisions in the area of curriculum planning must be based on value judgments, and such judgments are not usually accepted as research in the strict definition of that term. Certainly, research should be used extensively in formulating value judgments, but it is doubtful if the decisions that must be made in curriculum planning can ever be determined solely by the application of research technics. Therefore, in preparing this issue of the REVIEW, the committee has perforce included many studies and publications that provide worthwhile and excellent statements of points of view and principles basic to curriculum planning. These seem to constitute materials as important for analyzing the process of curriculum planning as are technical research studies that conform to the canons of research.

Members of the committee reported that definitive research on many basic curriculum problems is utterly lacking. Educators have not had the resources or time, apparently, to carry out thorogoing and penetrating research studies of many important aspects of curriculum planning, or probably more significantly, no one has yet been able to design research studies which provide sound conclusions about many major curriculum problems. This paucity of research in the curriculum area has long been noted by writers in this field and by research workers generally. But one must always consider the question of whether studies that explore basic issues in terms of philosophical concepts and principles, utilizing a system of carefully defined values, may not be the best kind of research for the area of curriculum planning. Obviously, such pronouncements and writings should be thoroly scholarly, clearly indicating basic assumptions and philosophical principles utilized in arriving at judgments, but nevertheless perhaps they need not rely solely on quantitative evidence for conclusions.

In preparing this issue of the REVIEW, the committee had to decide how far it should go in utilizing such philosophical statements. References include many articles and books of this type, but they all were carefully

selected by members of the committee because of the significance of their contribution to the clarification and definition of curriculum issues. The problem is illustrated by the fact that the committee had originally planned a chapter on curriculum issues but decided to drop the chapter when it became apparent that many of the statements currently being made on curriculum issues are not based on reliable evidence, utilize faulty assumptions about the educative process, and display a lack of rational argument.

The bibliographies included in this issue indicate the contributions to be found in doctoral dissertations submitted as a part of graduate requirements at major universities. It is regrettable that educators have not yet found some feasible method for making the results of such investigations more readily available to curriculum planners thruout the country. The members of the committee searched diligently for such research studies, but they recognize that a number of significant reports may not have come to their attention.

In view of the lack of definitive research on many aspects of curriculum planning it is indeed gratifying to know that a number of research agencies, such as institutes, field centers, and study councils established by colleges and universities, are actively engaged in carrying on significant research studies in the curriculum area, many of an action research character. The new research program of the U. S. Office of Education also should enable educators to carry forward important studies of value to curriculum planning. Many educational foundations have long made funds available for the study of curriculum problems. But much remains to be done.

J. GALEN SAYLOR, *Chairman*
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and Development

CHAPTER I

Curriculum Organization and Development in Historical Perspective

GEORGE A. BEAUCHAMP *

IN THE last issue of the REVIEW devoted to the subject of curriculum (1), studies utilizing a historical approach were included under titles dealing with some specialized phase of curriculum and curriculum planning. It is the intent of this chapter to discuss research and other materials based upon research focused upon trends in curriculum development, histories of education and historical studies in special fields, historical development of curriculum in individual or state school systems, and literature of curriculum terminology.

Trends in Curriculum Development

Trends in curriculum development were last reported in various sections of the June 1954 issue of the REVIEW (1). Merritt and Harap (49) reviewed trends in the production of curriculum guides as reflected by the output of publications during the period 1951-1953. Harap (33) reviewed trends in curriculum practices and planning procedures. He noted emphasis upon fundamental and useful learning, learning to work and live together, and a continuous demand for artistic and musical training for children. A continuing trend in the fusion of related subjects with core emphasis in the junior and senior high school was indicated. Leaders in curriculum development were reported as concluding that the individual school is the most effective instrument for curriculum change. Caswell and Bellack (18) also reported curriculum developments of recent years. They identified four areas that have become crucial in connection with curriculum development: (a) modern construction of the fundamentals of education, (b) differentiation of the role of the educator from that of the lay citizen in curriculum change, (c) assurance of quality of teaching and learning, and (d) the preservation of freedom of teaching and learning. Russell and Parker (56) reviewed some of the conditions that have influenced curriculum development over the years and discussed various guides to research for teachers. They concluded with eight suggestions for implementing research knowledge. Koopman (41) identified trends toward more mature cooperation in curriculum development by all persons concerned. Brauer (13) investigated trends in state legislation affecting the curriculum of the public

* David Rappaport, graduate student at Northwestern University, assisted in collecting the materials for this report.

schools by examining public-school curriculums as provided by state law in each of the 48 states in 1930, 1940, and 1950. He noted that more provisions were being eliminated than added and that the subjects most frequently being added by legislation were conservation of natural resources and treatments of alcohol and narcotics. He concluded that legislative attempts have been haphazard.

Research workers were also concerned with curriculum trends in individual school subjects. Shane (59) brought the results of research in language arts together and focused them upon improvement of methods and curriculum. Hodgson (37) reviewed the trends in social studies programming in elementary schools and presented the main content of offerings in social studies by grade level. Junge (39) discussed current trends in the selection of content and organization of arithmetic experiences; she noted stress upon meanings and upon problems of everyday living. Eakin (23) summarized trends in children's literature from the early 1930's to the present time. Within the period covered by this chapter, four issues of the *REVIEW* (2, 3, 4, 5) were compiled under the titles, "The Educational Program: Later Adolescence," "Instructional Materials," "Language Arts and Fine Arts," and "Vocational and Technical Education." Three issues in the series, "What Research Says to the Teacher," have not been reviewed previously in this journal: Fehr (26) interpreted research for the teaching of high-school mathematics, Barnard (7) the teaching of high-school science, and Fay (25) reading in the high school.

Trends at the various school levels were studied. Specific studies of trends in the elementary-school curriculums were lacking, but such authors as Otto (52) and Herrick and others (34) dealt with the evolution of the curriculum and with current issues in curriculum planning. More specific trends were identified in the curriculum of the junior and senior high school. Fouts (28) noted the trend in the junior high school away from subject-centered programs toward integrated programs. Koos (42), in a larger treatment of the same subject, observed the same trend and particularly emphasized program integration and enrichment. Gruhn and Douglass (32) included among trends, in addition to those above, lay and pupil participation in curriculum planning and curriculum emphasis upon citizenship preparation. Lentz (45) traced the historical development of the junior high-school program and indicated current trends. Brink (14) studied patterns of curriculum organization in 252 large secondary schools. He found that approximately 53 percent of them offered multiple-type curriculums in which each curriculum once undertaken was fully prescribed; the remainder had programs in which some courses were elective and others prescribed. He noted trends toward fusion of language arts subjects, attempts to adapt subject content to life needs, and an increase in courses for slow learners and gifted children. Bossing (11) investigated the trend toward core curriculum in the senior high school; he found 25 percent more core courses at the tenth-grade level than at the ninth-grade. Among the schools with core courses, 50 percent reported

core courses representing large blocks of subjectmatter, and 63 percent reported core courses organized around personal-social problems. Cremin (20) reviewed the secondary school and its program in historical perspective. He anticipated a new view of secondary education different from basic values held in the past and noted a particular need to define more sharply the secondary school's distinctive contribution to human needs. Douglass (21), Faunce (24), and Romine (55) devoted chapters to the history of and current trends in the secondary-school curriculum. Bond (10), Hockett (35), and Hockett and Bond (36) interpreted elementary- and secondary-school curriculum trends in terms of teacher education programs.

In a very significant issue of the REVIEW, Cook, Hovet, and Kearney (19) reviewed 25 years of curriculum research.

Histories of Education and Historical Studies in Special Fields

One weakness in curriculum research is the lack of systematic study of the history of curriculum development based upon original sources and devoted exclusively to that topic. The most exhaustive efforts in this direction are included in histories of education. Several good examples were published during the period of this review. Butts and Cremin (17) traced the development of schools and school programs in the United States from the perspective of cultural history. Butts (16) approached the history of Western education in a similar manner. In general histories of American education Drake (22), Good (31), and Noble (51) devoted sections and chapters to the evolution and interpretation of school curriculums of the various eras of our history.

The burden of historical research in subject fields has been borne by doctoral students. Each study makes its unique contribution, but it is impossible to discern any common conclusions. King (40) analyzed algebra textbooks used in American secondary schools before 1900 in terms of modern standards for similar textbooks. The teaching of government in secondary schools from 1861 to 1930 was studied by Pettersch (54). He particularly noted a gradual movement toward fusion practices in the social studies and modern problems courses. Gilbert (30) examined recent United States history textbooks in order to observe changes in the treatment of foreign affairs since 1865. In the last three decades substantial increase in lineage devoted to foreign affairs was noted. In an attempt to discover trends in the objectives, content, and emphasis in the teaching of American history in the senior high school since 1890, Skaurud (61) consulted reports of national committees, the contents of courses of study, statements of recognized leaders in educational literature, and contents of American history textbooks. He noted general agreement between textbooks and national committee reports and increased attention given to social and economic history, international relations, and America in a

world setting. In recent issues of the *REVIEW*, London and Spence (47) reviewed historical studies in the field of industrial education, and Leonhard (46) reviewed the history of music education. Mehl (48) studied the major developments of public secondary education during the 1890's.

Historical Development of the Curriculum in Individual or State School Systems

In comparison with the number of curriculum studies that are undertaken by individual school systems, few historical accounts of these endeavors are recorded in the research literature. If a curriculum guide results from these endeavors, the steps taken are often recorded in the preface to the document. These will not be reviewed here. Several studies of a historical nature, however, have come to the attention of the reviewer. Becker (9) presented a history of the development of the course of study in geography in the New York City high schools from 1898 to 1953. His technic was to analyze annual reports of the superintendent of schools and the publications of the high-school division of the board of education. Treatman (64) studied the administrative reorganization for curriculum development in the public elementary schools of New York City between 1925 and 1950. In treating the history of the Drury High School, North Adams, Massachusetts, Patterson (53) traced its development from a single-purpose college-preparatory institution in 1869 to a modern high school with a multiple-curriculum program. Fordyce (27) portrayed a two-year program of major curriculum revision in Euclid, Ohio. Russell and Lake (57) described curriculum development procedures at the systemwide level in Racine, Wisconsin, and pointed out the major principles of operation that emerged in the process.

A number of historical studies related to the development of curriculum in state school systems; again we are indebted to doctoral students for the majority of these. Most of the studies treated some specific aspect of curriculum development or an effect of some social force upon curriculum; few were general reports of statewide curriculum-planning efforts.

A survey of the effects of the Missouri School District Reorganization Law of 1948 upon the high-school program in that state was conducted by Bounous (12). Information was gathered from the Missouri State Department of Education and district supervisors of public schools. Results were interpreted in terms of trends in course offerings. Broach (15) compared the course offerings in the secondary schools of Arkansas in 1929-30 with those of 1951-52. Trends were identified by noting additions, deletions, and expansion in the course offerings. Jones (38) studied the roles played by the legislature, the state board of education, and the local school districts in developing the program of civic education in the state of Washington between 1853 and 1953. It was found that the legislature had provided basic foundations for civic education

by compulsory attendance laws and by laws requiring the teaching of history and government of the United States and of the state of Washington. Leadership by the state education authorities was indicated thru published courses of study. Springer (62) surveyed educational change in Pennsylvania affected by legislation and administrative interpretations between 1929 and 1954. Timmerman (63) made an analytical classification of various curriculum designs supported by educational theories and practices developed within recent decades, and as a second part of his study, compared the practices of South Carolina high schools with each classification. Frick and Moorer (29) described the initiation of the state-wide organization of the Florida Council on Secondary Education. The general purpose of the council was to initiate curriculum study on the state level with specific attention to secondary schools. Steps in organizing the council and establishing its purposes were outlined. The curriculum improvement movement in Oklahoma during 1952 and 1953 was described by Young (66). Tyler (65) reported the study of work experience programs in California high schools and junior colleges made under the auspices of the California State Department of Education.

Curriculum Terminology

It might be argued that a section devoted to curriculum terminology does not belong in a treatment of historical studies. However, terminology related to curriculum has been culturally generated, and the use of such terms should be subjected to review. Exhaustive review of this field is not possible within the limits of this chapter; therefore, representative writings will be cited.

Curriculum terminology was labeled "verbal jungle" by Shane and Yauch (60). The undergrowth is thickened by variations in such areas as curriculum definition, curriculum types or types of curriculum design, relationships between curriculum and teaching methodology, and techniques of curriculum planning. A study by Morgan (50) indicated that confusion in terminology exists in industrial arts and vocational education.

Three basically different definitions of curriculum were identified in the literature by Shane and Yauch (60) and Beauchamp (8). The first of these defines the curriculum in terms of the experiences of children under the jurisdiction of the school. The second defines the curriculum in terms of social need or social design for institutionalized education. The third approach is to think of the curriculum as the psychological changes brought about in pupils because of their activities in school. The existence of such basic differences suggests a need for greater agreement as to what is meant by the term *curriculum* and thus opens the topic for research investigation.

Writers of curriculum literature continue to describe various curriculum types or types of curriculum design. For example, Anderson (6), Beauchamp (8), Herrick and others (34), Krug (43), Krug and others

(44), Otto (52), Saylor and Alexander (58), and Shane and Yauch (60) discussed such curriculum types as the subject, correlated, broad fields, fused, core, activity, child-centered, integrated, problems-of-living, and experience curriculums. Frequently these are arranged between polar extremes of subject-centered and experience curriculum patterns. Research is needed to determine the degree to which these various types are operative.

From the foregoing kinds of observation this reviewer is prompted to suggest that there are a number of key concepts repeatedly used in different ways in curriculum literature. It has already been pointed out that the term *curriculum* represents a different concept to various writers. The word *experience* may be used in the dictionary sense as an occasion or activity; at another time it is used in a philosophic sense as in the writings of John Dewey. In curriculum theory this distinction needs to be carefully clarified. *Curriculum guide* means many things to different persons. *Curriculum design* and *curriculum theory* need more careful delineation. Writers and researchers could contribute greatly to reduction of communication problems in the area of curriculum by devoting attention to the improvement of curriculum language.

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CHAPTER II

Status of the Curriculum

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DURING the period under review, curriculum research revealed the persistence of certain well-known patterns such as the nondepartmentalized character of the elementary school and the predominance of English and social studies in the high school. It also revealed the presence of dynamic elements. For example, there was increasing experimentation with the core curriculum, and rapid expansion of foreign languages in the elementary school and of driver education in the high school. Timely experimental studies were reported in which the current public-school curriculums were compared with curriculums of the past and with curriculums of independent schools.

Curriculum Organization

Surveys by Dunn (15) and Molyneaux (40) showed that the prevailing pattern of the elementary school provided one class per teacher. At the junior high-school level, Wright (57) reported wide variations among states in policy relating to departmentalization. She pointed out that a number of states discouraged complete departmentalization in Grades VII and VIII in favor of multiple periods under a single teacher for a part of each day. The success of this arrangement was affirmed by Spivak's findings (51) that pupils who had attended self-contained classrooms in Grades VII and VIII did better both academically and socially in Grade IX than pupils who had attended departmentalized classes in Grades VII and VIII.

Krug, Liddle, and Schenk (30) studied 44 high schools in Wisconsin which had multiple periods. Reasons advanced by these schools for adopting multiple periods were (a) to ease the transition between elementary and secondary school, (b) to reduce the pupil-teacher ratio, and (c) to provide desirable correlation and fusion of content. Slightly more than half of the schools confined their multiple-period plan to Grades VII and VIII. Multiple-period work commonly consisted of combinations of English and social studies.

Types of Curriculum Programs

Brink (8) examined the programs in 252 high schools and discovered that slightly over half of them were multiple and the remainder consisted of "constants plus variables." The major types of programs and the proportion of schools which offered each were: college preparatory (100 percent), commercial (84 percent), general (76 percent), industrial arts

(65 percent), home arts (40 percent), agriculture (22 percent), fine arts (20 percent), and nursing (5 percent).

Core Curriculum

Bossing (6) gave an account of the status of the core curriculum in 1000 senior high schools thruout the United States, on the basis of a 45-percent questionnaire return. Nine percent of the junior-senior high schools, 6 percent of regular high schools, and 7 percent of senior high schools had core courses. These figures, Bossing showed, were higher than comparable figures which had been reported for 1949. Approximately 15 percent of the schools not offering core courses either contemplated doing so or foresaw the possibility of their doing so.

Timmerman (53) explored the curriculum practices of 54 high schools in South Carolina. Despite what he described as the subject-centered nature of the state's requirements, he found that 57 percent of the schools were studying curriculum reorganization, with core courses established in 4 percent of the schools.

Troops (54) made an intensive, firsthand investigation of 10 city school systems in Indiana, all of which had core courses. She found most of these courses in Grades VII and VIII. Prevalent core practices included allotting two consecutive periods for core classes, assigning one teacher for each core class, organizing the classes heterogeneously, and placing emphasis on academic subjects. There was little provision for guidance or teacher-pupil planning.

In view of the heavy preoccupation of many core courses with English and social studies, Albert's analysis (1) of potential mathematical content was of timely significance. She revealed that mathematical concepts were essential to 271 of 1262 core activities in 16 problem areas. She pointed out the implications of her findings for the preparation of core and mathematics teachers.

Enrolments, Time Allotments, and Emphases by Subject

Lindsay (35) reported high-school enrolments in California. The subjects ranked as follows (figures denote proportion of all students enrolled): English (100 percent), social studies (95 percent), mathematics (63 percent), science (45 percent), business (39 percent), industrial arts (38 percent), music (30 percent), homemaking (27 percent), foreign language (22 percent), art (21 percent), vocational agriculture (0.5 percent), and trades (0.2 percent). Roehr (46), also working with California data, found English and social studies enrolments practically equal; English held a slight edge perhaps because those courses in which English and social studies content were part of a single course were counted as English. These reports from California are not to be interpreted as even approximations of national indexes since enrolments vary considerably

from state to state. For example, Donovan (13) reported that the combined enrolments in foreign languages in New York State constituted 48 percent of the total enrolment.

English

Day (11) analyzed English programs in Iowa high schools and found that more time was devoted to literature than to language and speech. Salter (47) reported that English classes in Texas gave increasing emphasis after World War II to ideals of citizenship, nationalism, and communication in everyday life.

Social Studies

Fraser (24), in summarizing her own research plus that of Duffey (14), Hodgson (27), and others on the status of elementary-school social studies, concluded that "fusion" and "integration" were the predominant patterns of organization and summarized the commonest subjectmatter in elementary-school social studies. Jones (28), in a survey of social studies programs in large city high schools, reported that 14 courses were offered and specified their commonest grade placement. Skaurud (49) reported that increasing attention has been given since 1890 to social, economic, and current history and international relations.

Mathematics

Brown (9) investigated the programs of 857 high schools. The schools had enrolments in geometry equal to 34 percent of Grade X enrolments; in intermediate algebra, to 23 percent of Grade XI enrolments; and in senior mathematics, to 10 percent of Grade XII enrolments. He reported a decrease in enrolments between first and second semesters of mathematics courses—as high as one-third in the case of intermediate algebra, with a larger proportion of boys than girls dropping out. Wiseman (56) found that the students entering South Dakota A. and M. College had taken slightly more mathematics in high school than had been taken by students 10 years previously and that 40 percent of the men students had taken mathematics beyond algebra. The gifted student was probably better cared for in mathematics than in most branches of study if Roach's findings (45) in Indiana hold elsewhere; he reported that 46 percent of schools had some type of mathematics program designed for the gifted.

Science

Science has long been a stepchild in the elementary school. Auletto (3), studying its status in Delaware, discovered that 56 percent of the elementary-school teachers felt they were teaching science inadequately. The teachers he queried ranked science ninth in importance among the various

elementary subjects. At the secondary-school level, according to Flannigan (22), general science courses were replacing specialized courses such as chemistry and physics; increased emphasis was placed upon teaching broad understandings which contribute to a grasp of scientific method and critical thought. Foster (23) investigated the science programs in Missouri and found that, in company with fine arts, science had the fewest number of course offerings (only general science and biology were offered in the majority of schools) and that fewer students were enrolled in science than in any other subject. Foster also disclosed that in Missouri more temporary teaching certificates were issued in science than in any other subject. Of the science teachers he studied, 26 percent failed to meet requirements for teaching science.

Business Education

Van Wagenen (55) studied the enrolments in business education in California. He found typewriting to be the leading subject, accounting for approximately 40 percent of the total business education enrolment. Accounting and bookkeeping (a combined subject) was a poor second, its enrolment accounting for approximately 11 percent of the total.

Foreign Language

One of the most promising trends in the curriculum today is the growth of foreign-language instruction in the elementary school. A complete account of this movement was prepared by Andersson (2). At the time of his writing, 59 programs had been reported. Of 281 elementary schools in Michigan, according to Etnire and Loughridge (20), 29 reported one or more languages being offered, involving approximately 10,000 children. Mildenberger (38) reported that foreign languages were being taught to a total of over 270,000 elementary-school pupils in almost 2000 schools located in 357 cities and towns (as compared with 89 cities and towns in 1952) in 44 states and the District of Columbia; in 1941 fewer than 500 elementary-school pupils were studying a foreign language.

Enrolment figures given by Mildenberger showed Spanish leading with 222,000, then French with 47,000, and German third with 2500. Six other languages showed lower enrolments. Mildenberger cited a study by Annuciata which revealed that 157,000 children were studying foreign languages in 483 Catholic elementary schools in 285 cities and towns of 27 states and the District of Columbia. French was the leading language with Polish, Italian, Lithuanian, and others following in that order.

With respect to enrolments in public high schools the Modern Language Association (39) showed that since 1948-49 French has been gaining, German has been holding its own, and Spanish and Latin have been losing. Enrolments by language in terms of percentage of total enrolment were given as follows: Spanish (7 percent), Latin (7 percent), French (6 percent), and German (less than 1 percent). Forty years ago German was

second only to Latin. Data were also supplied concerning eight other languages.

Driver Education

Some 10,000 high schools were polled by the Research Division of the National Education Association (42). Of these, 47 percent reported having some form of driver education and most of these granted from one-half to five-eighths of a unit for it. Mushlitz (41) reviewed the status of driver education in California, pointing out that it was generally offered as a separate course consisting of 30 clock hours altho one-fourth of the schools offered it as a part of other courses.

Electives

The nationwide mean with respect to elective units, according to Layton (32), was 9.2, or 58 percent of school time. Kretsinger (29) studied the programs of graduated college-bound students in the secondary schools of Oakland, California, and indicated that 63 percent of the students had taken an average of three semester courses of electives each year for four years.

Requirements for Graduation

Social studies was the most frequent state requirement and English came next according to Layton (32) and Wright (59). In a survey of social studies requirements among 107 large cities, Jones (28) found that United States history was the most commonly required branch with civics (or government) problems, and world history coming next in that order.

The shortage of scientists stimulated several investigations into the extent to which mathematics and science were required for high-school graduation. Wright (59) reported that a number of states reduced their requirements in mathematics and science since 1932. Layton (32), in a study of state requirements for graduation in 47 states and the District of Columbia, found the nationwide means of Carnegie units required in four subjects as follows: English, 2.8; social studies, 1.7; science, .7; and mathematics, .6. On the other hand, many schools go beyond state minimum requirements. Thus, Brown (9), in studying the requirements in 857 schools thruout the nation, found that 92 percent required at least one year of mathematics; for college-bound pupils, nearly three-fourths of the schools required at least two years of mathematics.

Aside from the basic subjects, Wright (59) noted that three other subjects were required—the effects of alcohol and narcotics in seven states, conservation in three states, and driver education in two states. (The NEA Research Division (42) stated that *three* states—California, North Dakota, and Virginia—required driver education.)

Statutory Provisions

Plischke (43) found that elementary-school curriculum legislation pertained to (a) nationalism (i.e., devotion to the interests of state and nation), (b) health and prohibition, (c) conservation of life and property, (d) practical and cultural subjects, (e) humaneness, (f) fundamental subjects, (g) religious and ethical subjects, and (h) miscellaneous subjects (i.e., science, social studies, and the like). Lehman (34) worked out a similar classification in analyzing legislation affecting the high-school curriculum.

Reutter (44), in reviewing curriculum law, found that it related to (a) specific elements of subjectmatter (such as the state constitution, spelling, and arithmetic); (b) ideas, attitudes, and influences (such as patriotism and moral conduct); (c) methods of teaching; and (d) texts and other materials. While most of the provisions were specified by state law, Reutter reported that some were contained in state constitutions.

Grimm (26) and Reutter (44) pointed out that some states enacted legislation to protect the rights of pupils and parents who object to specified subjects and activities on constitutional or conscientious grounds. Pupils in Illinois and Indiana who object to the study of disease on those grounds may be excused from it; and in New Jersey pupils may be excused from reciting the pledge of allegiance and saluting the flag.

Sources and Nature of Legal Requirements

Reutter's analysis (44) led him to believe that curriculum changes usually originate at the local level and that state laws tend to follow curriculum innovations of local districts. Dilley (12) analyzed four sources of legal authority which furnish the framework of the curriculum: (a) the Constitution of the United States, (b) state legislatures, (c) court decisions, and (d) regulations of local boards of education. He pointed out that even the some prescriptive legislation may hinder desirable curriculum change, the courts have encouraged curriculum progress, and state legislation may be changed if the people so desire. Altho this is true, Lehman (34) noted that school law nevertheless possesses ponderous inertia, and, furthermore, states will often imitate the laws of one another. He concluded that while the state may properly prescribe subjects and activities, the details of instruction should be left to the professional educator.

Are the laws regulating the curriculum related to problems and needs arising from our rapidly changing culture, or are they of an arbitrary nature? Brauer (7) found comparatively few prescriptions related in a well-defined way to cultural changes. Lindsay (36) reviewed mandatory high-school instruction in California since 1872 and, in contrast to Brauer's findings, indicated a close relationship between legislation and social needs in the areas of manners and morals, narcotics, fire prevention, physical exercise and health, social studies, and public safety.

Driver training is an obvious need growing out of social change. It is pertinent to note that *School Life* (48) and several of the foregoing investigators (26, 36, 43) reported legislation calling for expansion of driver training and other aspects of public safety.

Trends in Volume of Legislation

Swingley (52) and Brauer (7) found the trend to be away from enacting laws which make specific prescriptions. Lehman (34) found a steady increase of prescriptions affecting the high-school curriculum, but at a diminishing rate. Plischke (43) found that the total number of prescriptions which were related to nationalism increased in all states during the war and postwar years, 1941-1951. Bevans and Peattie (4) reported on the history of prescribed instruction in California since 1904.

The difficulty legislatures have in keeping hands off the curriculum even after deliberately making the attempt was seen in Ohio where in 1943 all statutory requirements were removed except one (one unit of American history was required for graduation). The *Educational Research Bulletin* (18) reported that in 1955 the Ohio legislature abandoned its hands-off policy. It made instruction mandatory in seven fields of study and included a provision concerning the sequence of studies by directing that geography, United States history, the government of the United States, and other basic social studies areas must be studied by pupils before they may receive instruction in courses involving the more controversial subjects of social problems, economics, foreign affairs, the United Nations, communism, and the like.

Pressure Groups and the Law

The potent role of pressure groups in effecting curriculum legislation was brought out by Swingley (52), Plischke (43), and Lehman (34). At the secondary-school level Lehman found 45 organizations which were influential in bringing about curriculum legislation. Plischke listed 43 organizations which influenced directly the enactment of legislation dealing with the elementary-school curriculum. Among the organizations Plischke found particularly responsible for legislation in each of several categories were: *Nationalism*—American Legion, Daughters of the American Revolution, American Legion Auxiliary; *Safe Driving*—American Legion, Association of Casualty and Surety Companies, National Safety Council; *Humaneness*—Society for the Prevention of Cruelty to Animals; *Conservation of National Resources*—state teacher associations, Kiwanis, Lions, Rotary, Federation of Women's Clubs.

Effects of Legal Requirements

There has probably been too much speculation about and too little study concerning the impact curriculum legislation has upon instruction. Markert's investigation (37) of the effect of a Missouri law upon teaching is, therefore, of unusual significance and interest. He selected for inten-

sive study a law requiring instruction in, and examination on, the state and federal constitutions. He studied its operation in 27 high schools in St. Louis. In general, Markert found that teachers complied with the law and gave greater attention to these subjects after the law's enactment than before. However, he reported that their attention tended to focus upon the required examination. The statutory prescription tended to restrict the teacher's freedom even in nonrestrictive aspects of the legislation, tended to yield a narrow and perfunctory program, and tended to limit the quality of instruction.

The Curriculum as Reflected by Pupil Achievement

The stream of "then and now" studies continued. Bloom (5), in making new sets of national norms for the *Tests of General Educational Development* in high schools thruout the nation, noted that the national level of educational competence among high-school pupils had risen significantly since 1943. The median level of performance in the various states varied considerably and appeared in the judgment of Bloom to be related to the extent of financial support given to education in the separate states and to the level of education of the adult population.

Lanton (31) found the composite achievement of Evanston pupils in Grades III and V in 1953 to exceed that of Evanston pupils in 1934. Sligo (50) compared the 1954 achievement of pupils in Grades IX and XI in 54 Iowa high schools with that of pupils who were in the same grades and schools in 1934. The 1954 group achieved significantly below the 1934 group in algebra, English correctness, and United States history. The two groups were equal in general science. However, the validity of these differences is dubious inasmuch as Sligo states that in 1934 the teachers devoted a large portion of their time to coaching their pupils for the examinations.

Impact of Core Courses

Wright (58) reviewed 10 years of research on the core curriculum; she concluded that core programs are only moderately successful in promoting growth toward their stated goals. Gale (25) compared the records of pupils who had taken a core program at a school in which it was an elective offering with the records of noncore pupils. He found the groups equally successful in terms of academic achievement in high school and college and in terms of social adjustment. Fair (21), using four tests of social sensitivity, reported core groups somewhat more socially concerned than noncore groups but not consistently or impressively so.

Public and Independent Schools

The Educational Records Bureau (17) reported that median achievement test scores for independent schools consistently surpassed the medians for public schools (except in the field of foreign language) at

both the elementary and secondary levels. As the Bureau's report indicated, this difference is to be expected in view of the selective nature of the independent-school pupil population. The exception of foreign-language achievement is accounted for in the report by the probable higher scholastic aptitude of public-school pupils who elect foreign language study than that of public-school pupils enrolled in other subjects.

The higher medians of independent schools often create misleading impressions concerning the quality of the public-school curriculum. Several studies showed that public-school graduates actually exceeded the performance of independent-school pupils of comparable ability. Davis and Frederiksen (10), in a study of freshmen and sophomores at Princeton, found that public-school graduates made a higher academic average, in relation to ability, than did independent-school graduates. Dyer (16) analyzed College Board Scores and discovered that public-school pupils exceeded independent-school pupils in most of the tests. Elicker (19) reported that of those elected to Phi Beta Kappa at Harvard, Yale, and Colgate, more came from public schools proportionally than from independent schools.

Motivation

Lazarus (33) brought out the potent role played by motivation in pupil achievement. Three hundred incoming students in Grade X who had given evidence of enjoying reading and creative writing were invited to join a course which they were warned would be "stiff" and "concentrated." Of 28 who volunteered, eight dropped out on the first day. The 20 who remained had a median IQ of 104. At the end of the semester their achievement was compared with that of 20 students whose median IQ was 120 and who had pursued an identical course. The high-interest class exceeded the high IQ class in mechanics of expression, effectiveness of expression, literary appreciation, number of books reviewed, and number of written papers. The role of pupil motivation is so crucial and obvious that it is to be hoped that more attention will be given to it in future curriculum research.

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CHAPTER III

Factors Influencing Curriculum Development

DAN W. DODSON

THAT education takes place in a social framework is taken for granted. In 1952 an entire issue of the REVIEW (2) was devoted to this topic. Because of the complexity of social forces influencing curriculum development, any exploration of particular factors must, by necessity, be selective. Larsen and Toy (35) classified such forces in curriculum change as (a) state agencies, (b) the federal government, (c) the profession (more than 500 national and regional organizations, more than 100 state bodies, and thousands of local units), (d) accrediting agencies, (e) special interest groups, (f) business and labor groups, (g) patriotic groups, (h) racial and religious groups, and (i) the community. Even this classification does not allow, however, for the more impersonal impact of social and political forces on a wider canvas.

Forces Representing the Processes of Change

Social changes influencing the curriculum include both the amount of population mobility (40) and its pattern. White, middle-class people with children are migrating to the suburbs of metropolitan communities, and the "inner cities" are becoming populated with what the Census Bureau classifies as "non-white." Four studies of school systems (44, 45, 46, 47) indicated some of the impact of suburban living upon the curriculum. They showed (a) concern over how to plan an educational program to counteract the accentuated homogeneity of age, ethnic background, and communities of commuting fathers; (b) entire new school systems built and staffed overnight with inexperienced teachers who tend to fall back on workbooks to tide them over their apprenticeships; (c) inordinate pressures upon youth to take academic programs so that they can get into college; and (d) problems of adjustment of the curriculum to the inequities created by outmoded means of financing education. (Levittown, New York, for instance, has no industries and few businesses. At the peak of its schools' enrolment it will have only about \$2500 per child tax base. New York State, for comparable assessments, has an average of \$15,000 per child tax base.)

Several states and agencies attempted to work on a curriculum design for migrant workers' children. These migrant streams following seasonal labor seem to have become a permanent part of American life, and the challenge to education to deal with this type of mobility was growing (16, 59). At the "inner city" the adjustment of the "newcomer" still

besets curriculum planners (39, 41). Arter (3, 4) and Dodson (14) reported Manhattan studies which reflected the issues referred to here. They included such related items as (a) rapidly changing neighborhoods, (b) self-segregation of minority youth, (c) group self-hate of minority children, and (d) rigidity in school climates.

Racial and Intercultural Relations

The second aspect of change reflected in the research is that of racial and intercultural relations. The May 1954 decision of the Supreme Court apparently accelerated concern with this problem throughout America. The Fund for the Advancement of Education sponsored two studies of import for the school program (3, 67). Three national professional journals (15, 61, 63) devoted special issues to the problem. Four special reports of significance described the desegregation process and gave some consideration to curriculum in leading border cities (7, 11, 28, 62). In these communities outstanding pressures on curriculum included (a) better counseling and guidance, (b) more special-class programs including remedial reading and classes where bright children would not be held back by slow ones, (c) more special services such as health, (d) more attention to basic units dealing with racial and cultural matters, (e) new types of activity programs dealing with social groupings, and (f) concern with community climate as a factor in learning. Evidence of the sensitivity of education to this factor was indicated by the growing number of summer workshops devoted to it. From two such teacher education experiences in 1942 the number had grown to 38 in 1952 (55). Human Relations Centers in colleges and universities were also indicative of this trend. Epley (20) reported 11 such programs in American colleges and universities in 1955.

Technological and Industrial Change

The third force of change impinging upon curriculum relates to the realm of technology and industrial organization and the attendant changes in national character. Four books (38, 54, 57, 66) illustrated one aspect of such changes. In one way or another Mills, Riesman, Seeley, and Whyte said (a) there are enormous pressures toward conformity to white collar, middle-class society values; (b) increasingly both education and industrial organizations are manipulating people to such conformity by use of behavioral science techniques; and (c) national character is delineated by "other-directed" rather than "inner-directed" forces. In addition, Warner and Lunt (64), Havighurst and Neugarten (29), Davis (12), and Hollingshead (32) emphasized a growing stratification of American society and evaluated curriculum in one way or another against class status. Not only were intelligence tests evaluated against this type of insight, but texts were restudied and teacher sensitivity to such problems was examined as well (51).

Factors Representing Ideological Differences

The second major impact on curriculum development is represented by forces stemming from ideological differences. High on such a list is the thorny problem of religious difference. Hager, Glock, and Chein (26) edited a number of the *Journal of Social Issues* on "Religious Conflict in the United States." In that issue Pfeffer (50) spelled out many of the issues with which curriculum makers are concerned; e.g., released time for religious instruction, controversy over moral and spiritual values, holiday observances, "godlessness" in the public schools, prayer recitation, distribution of Gideon (Protestant) Bibles thruout the schools, and baccalaureate services of public schools held in buildings owned by religious groups. Other studies dealing with this issue included those by Parker (49), an NEA commission (43), Thayer (60), Dawson (13), O'Neill (48), and Mason (37). At a different level is the work of Herberg (31) whose study documented a hypothesis that America is becoming a triadic culture of Protestant, Catholic, and Jew. The increased enrolment in churches may indicate a search for identification rather than increased religiosity. Herberg saw these pressures toward faith identification as all but inexorable. Educational curriculums contributed their share of the pressure in this direction according to the author.

The Cold War

The second pattern of ideological impact upon curriculum is that of the cold war with Russia and its sequela. Studies tended to preoccupy themselves with such issues as "How can we keep ahead of the Russians in scientific manpower?" (53) and "How can education be used to combat the manpower shortage?" On the former, Rettaliata found that from 1951 thru 1954, United States colleges and universities graduated only 116,000 engineers while the Soviet Union produced 154,000; the figures in 1954 were U. S. 20,000, U. S. S. R. 54,000. The factors responsible, he held, were (a) inadequate high-school curriculum, poor counseling, stress on general education, not enough required high-school courses (especially physics); (a) lack of high-school motivation; (c) shortage of qualified high-school science teachers (we are now producing less than one-third of the annual need of 7700); (d) college motivation (the top 25 percent of high-school graduates should go to college; only about 50 percent of these do so); and (e) the draft.

The Educational Policies Commission (42) listed (a) development of new and improved post-high-school programs, (b) guidance and counseling programs, and (c) education of the gifted as among the urgent demands upon education to meet the manpower shortage.

Folsom (22) confirmed the challenge of Russia and indicated a rise of freshmen in engineering from 6.5 percent of college enrolment in 1950-51 to 10.5 percent in 1955-56. Ginzberg (25) and an entire research program of Columbia University were concerned with solving human

relations and with improving quality and quantity of education as measures for increasing national strength primarily and enhancing human personality secondarily. A conference jointly sponsored by the Educational Records Bureau and the American Council on Education was devoted to selection and guidance of gifted students for national survival (1).

Educational Ideologies

The third force which has involved curriculum development stems from differences in educational ideologies. Scott and Hill (56) published a compendium of many of the more salient challenges together with replies. From among the more outstanding criticisms of present educational leadership perhaps mention should be made of Bestor (8) who challenged anti-intellectualism, Lynd (36) who attacked present teacher education programs, and Flesch (21) who disagreed with modern reading methods.

More important were the attacks upon school systems which were typified by the Pasadena fight. The definitive study of this nationally discussed case is yet to be made. Hulburd (33) has perhaps done the best documentation of it to date. It is hard to understand why several good studies have not been done of Pasadena; Houston, Texas; Scarsdale and Port Washington, New York; and Denver, Colorado. Each would shed much light on this problem.

Forces Representing Community Power Structure

Following the war there were many deep cleavages in school systems due to clashes of interests in the community power structure. Hunter (34) demonstrated the nature of this structure. Warner and others demonstrated its operation in *Democracy in Jonesville* (65). In the postwar era many types of citizens committees were launched to assist in securing more school facilities thru community cooperation. Hechinger (30) studied the way the Connecticut group operated. Hand (27) reported on a statewide program in Illinois; and Edwards and Joslin (19), for a large community in New York State. There was no adequate study of the effects of the most ambitious of these programs, the National Citizens Commission for the Public Schools.

There seems to be no adequate study of the role of patriotic groups since the war. That such groups have been active is common knowledge. It may be singular that the climate of the times is such that there have come forward no Gellermans (24) or persons with the interests of Raup (52) to examine the influence of these groups on curriculum. In addition there has been no adequate assessment of groups such as the Minute Women, the White Citizens Councils of the South, and the Christian Front groups of the early war era.

Another dimension of official power in the community which has not been thoroly reviewed is that of state departments of education and

accrediting associations. Seitz (58), Balyeat (6), and the California State Department of Education (9, 10) are examples of studies devoted to one or another phase of this question; definitive study of these agencies, however, is yet to be made. If it is assumed that what is evaluated for determines what is taught, this aspect of accreditation becomes important. In New York State where regents examinations are the basic standard for evaluation, the principal objective of some school systems is the preparation of students to pass these examinations. The role of the College Entrance Examination Board is yet to be determined. For the private schools and the high schools of states other than New York these ETS examinations are rapidly becoming a more important factor in high-school curriculum than is the supervision of state departments of education. The number of candidates taking these tests increased from less than 80,000 in 1948-49 to almost a quarter-million in 1955-56 (17, 18).

The influence of educational foundations upon curriculum making in American education has not been assessed. Examples of material which is probably influential are the reports of the Fund for the Advancement of Education (23) dealing with articulation between school and college and some of the encouragement given to use of closed circuit television and other aids to assist teachers where there are teacher shortages.

Summary

Altogether, studies made during the period under review seem to indicate much preoccupation with educational ideologies but small concern over the uniqueness of the community and what that means for curriculum. The forces which seem to be pressing education into new directions are the great impersonal ones. They seem to indicate more pressure to conformity. There is little sense of direction given by purposive efforts. Another facet of importance which seems to be indicated is that there is still great disagreement about the function of the secondary school in America. This debate will undoubtedly be accentuated as increased enrolments are more widely felt.

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CHAPTER IV

Design of the Curriculum

VIRGIL E. HERRICK

HERE has been increasing interest in the problem of curriculum organization or design since the comparable issue of the REVIEW three years ago. This interest is still mainly theoretical and descriptive, but for the first time, healthy signs of critical, comparative, and explorative studies are appearing. Perhaps most promising of all is the growing number of theses on related aspects of curriculum planning. There seem to be real signs of a significant development taking place in this area of the curriculum.

The Ramifications of Curriculum Design

Saylor and Alexander (56) defined *curriculum design* as the framework or structural organization used in selecting, planning, and carrying forward educational experiences in the school. Design from this point of view is the framework within which the teacher and/or learner plans and develops learning experiences. Herrick (28) stated that a structure or curriculum pattern provides a consistent framework of values and their priorities for dealing with the operational decisions of the teaching-learning situation. A curriculum design and its attendant theory should have to do with (a) accounting for all the factors that are involved in curriculum; (b) defining the coherency of these factors both to themselves and to their action points; and (c) indicating the roles of teachers, children, and others in the process of curriculum planning. Essentially the same points were made by Passow (49) in his proposed plan for the education of the gifted and Courter (16) in his article on educational planning and the need for an explicit basic philosophy.

Common Curriculum Plans

Common curriculum patterns are the subject, broad fields, problems of living, and emerging needs approaches of the elementary school, and the subject and core curriculum approaches at the secondary-school level. Interest in these approaches during the past three years was concentrated in a few areas.

There was a growing interest in the nature of subjectmatter and its selection in curriculum. Wegener (62) made a case for the intelligibility of subjectmatter itself as an important factor in curriculum organization. Phenix (50) stated that because man can never know all that he needs to know, he must be concerned with the importance of concept

formation, knowledge organized in idea systems, and the use of the principle of economy in selecting the most important concepts. Krug (35) and McClellan (37) investigated the differing conceptions of the nature of knowledge and pointed up the implication of this differentiation for curriculum.

Cooling (15) studied the nature of the criteria used for choice of subjectmatter in representative new-type curriculum proposals. Miel (41) presented the view that content of the curriculum should be defined broadly by the experiences of children and the social setting in which the educational process takes place. Fleming (21) discussed the research procedures involved in this selection. Foshay (22) explored the choice of content by formulating propositions about the nature of man and his rational powers. Tyler (60), while admitting the general value of this approach, criticized its adequacy *alone* to serve as a sufficient base for curriculum development.

In specific subject fields of arithmetic and science, Mueller (45), Riess (52), and Milgrom (42) discussed the bases upon which learning materials should be selected and organized. Ellsworth and Sand, in two key chapters of the Twenty-Sixth Yearbook of the National Council for the Social Studies (46), suggested ways for improving the social studies curriculum. Fraser (23) described the organization of the elementary-school social-studies program in a similar chapter in the Fifty-Sixth Yearbook of the National Society for the Study of Education.

The Experience Curriculum Design

Hopkins (29) in his latest book restated and extended his general proposition that learning in the school and in the home should be treated as a phase of the child's biological growth process thru which he discovers, releases, and develops his potential capacity into his maturing self. Archambault (2) examined the concept of knowledge as a process of reflective adjustment, learning as problem solving, the idea of the means-ends continuum, and the organic relations between methods and objectives as the key philosophic bases of the experience curriculum. Russakoff (53) examined children's interest as a means for curriculum improvement. Cogan (13) and Huebner (30) attempted to develop a theoretical framework useful in dealing with teacher-pupil interaction in the classroom.

The Core Curriculum Design

Birkmaier (4) restated the values of a core curriculum for adolescents as an opportunity for them to deal with problems important to all youth, to have their learning focused on meaningful problems, to consider relevant content without regard to subjects, to practice democratic group learning, and to be concerned with methods of problem solving. Mitchum and Isacken (44) argued the effectiveness of the core curriculum in the junior

high school; Bossing (6) discussed its development in senior high. Jackson (32) developed a measure of staff orientation toward core and subject curriculum theories and found that school staffs favor the tentative organization of the core plan over the fixed.

Wright (63) in her review of 53 doctoral dissertations developed in the 10-year period between 1946 and 1955 on the core program found them distributed as follows: eight on initiation and development of programs, 12 on surveys of general practice, five on administrative problems, 10 on content and subject utilization, seven on instructional methods and materials, seven on teacher education, and four on effectiveness of the core program. She pointed to the need for more research on the problem of relative effectiveness and on areas other than English and social studies fusion. Lurry (36) described the action research programs of a selected group of Maryland schools on core program development. Mennes (40) reported students' opinions of their experiences in core programs. According to Gale (25), graduates of core programs succeeded as well as or better than matched graduates of other curriculum patterns.

Curriculum Organization at Secondary-School Level

Brink (9) studied 252 high-school programs and found five general types of curriculum. The multiple program is the most common type (college preparatory, 100 percent; commercial, 84 percent; general, 76 percent; industrial arts, 65 percent; home arts, 39 percent; fine arts, 19 percent; agriculture, 21 percent; and nursing, 5 percent), followed by constants with variables (major and minor), unified studies and core curriculum, and provisions for slow learners and gifted. Miller (43) and Spitznas (58) argued for the use of the individual school as a unit for curriculum change, recommending the addition or removal of courses, the adjustment of direction of emphasis, and efforts toward the improvement of instruction as effective means for curriculum study. Sanford (55) posed three crucial questions to be answered: Who should be educated? What learning experiences should be provided? How should those learning experiences be provided? A number of studies were proposed as ways to give answers to these questions. Various guidelines to the secondary curriculum were developed by Douglass (18, 19). French (24) summarized the role of the American high school as being free, public, comprehensive, and designed to help all youth to attain a higher level of competence to think and act in the face of problems and situations of daily life.

General Aspects of Design

General books in curriculum paid more attention to the problem of design than in previous years. Saylor and Alexander (56) and Anderson (1) discussed the problem of design in relation to curriculum patterns now

being commonly used. Douglass (18) dealt with the problem of the high-school curriculum but failed to present any over-all framework within which the work of this portion of the common school may develop. Swenson (59) in an article showed what some of the problems of this articulation are. Guidance was portrayed by Kelley (33) as one of the common denominators of curriculum organization. Fitzgerald and Fitzgerald (20) put more emphasis on methods of instruction in the various subject fields in the elementary-school curriculum than on the general problems of curriculum design.

An interesting application of a curriculum framework to the study of nursing education was made by Sand (54). This study showed the value of a theoretical rationale in any effort to improve educational programs. Unpublished doctoral theses by Bower (7) and Bentul (3) presented the role of curriculum theory in developing organizing principles for a course of study and in examining the roles of textbooks. On this last point, the study by Cronbach (17) made a contribution.

Objectives have always been considered as having an important role to play in any curriculum design, but few studies have been made of either their nature or their functions. Bloom and associates (5) made a significant attack on the classification and definition of objectives. They saw three major parts in a complete classification of objectives: the cognitive, the affective, and the manipulative or motor skill areas. Their report treated only the first in detail. Nerbovig (48), thru a series of comprehensive interviews with teachers, studied how objectives were actually used by them in dealing with their problems of teaching. On the level of the teacher, Rehage (51) examined the ways in which the teacher may obtain evidence for making instructional decisions.

The Foundation Areas and Curriculum Design

There is general acceptance of the importance of philosophy, the behavioral sciences, and the social foundations in the development of curriculum programs. Increasingly, the area of curriculum theory or design will be influenced by advances in these foundation areas.

The National Society for the Study of Education yearbook on modern philosophies and education (47) re-examined the import of philosophy for education and educational planning. Brackenbury (8), Childs (12), and Hullfish (31) developed the nature of the contribution philosophy makes to education, and the latter two authors showed how the pragmatism of Pierce, Mead, Dewey, and others provides the theoretical framework for one approach to curriculum design. Fundamentally, all curriculum decisions rest on some kind of value decision, and Champlin (11), Getzels (26), and Scheffler (57) showed the contributions of philosophy, personality development, and science to educational policy.

The reassessment of the individual, the clarification of significance of social groups, and an enlarged view of perception, communication, and

problem solving are what Tyler (61) saw as some of the major areas of development in human behavior which have significance for education. Kimball (34), Brookover (10), Coladarci (14), and Haggard (27) tried to show the contributions of political science, anthropology, sociology, and learning theory to educational theory. McGuire and White (39) showed the social class influences on the educational program of the school and ably delineated the contributions the behavioral sciences can make to research in curriculum. The theoretical framework of Parsons and Skils was used by McDonald (38) to examine present curriculum theory. The major contribution of this social system to curriculum analysis seemed to be to underscore the importance of the centers for organization as being key components in any curriculum design.

Need for Research

While few of the references used in this chapter are research studies, promising trends are appearing. Careful studies of the contributions of the foundation areas to curriculum need to be combined with philosophic studies of the purpose and value of education in America. Even more important, we need exploratory and descriptive examinations of what the dimensions and subjectmatter of curriculum design really are. Promising efforts in this direction relate to the analysis and explanation of the classroom scene and of patterns of teacher-pupil interaction. Especially promising for design are the efforts to describe and analyze the operational aspects of the common curriculum problems of objectives, selection, organization, continuity, and evaluation.

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CHAPTER V

Adapting the Curriculum to the Needs, Capabilities, and Talents of Individual Students

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A BASIC concept guiding the development of modern American education has been the belief that all children and youth—with their range of differences in abilities, interests, aspirations, and experiential backgrounds—should be provided adequate and appropriate educational opportunities. Individualization of instruction is a continuing concern of teachers and other curriculum workers. The steady outpouring of literature dealing with the general problems of differentiating educational experiences tends, however, to be primarily descriptive or suggestive and contains comparatively few reports of research and experimentation. More numerous are the studies of the characteristics of and program modifications for children whose deviations are such that they are classified as exceptional children.

The expanding research interest in exceptional children is perhaps most striking in the areas of the intellectually gifted and the mentally retarded. Spurred by criticisms of the quality of educational programs and by manpower studies which underscore shortages in areas of specialized talents, research on the gifted has swelled in the past decade. And as schools have become more comprehensive in nature and increased their holding power, the problems of providing for retarded children have stimulated research. The December 1953 *REVIEW OF EDUCATIONAL RESEARCH* pointed out the rapid growth of interest in and provisions for exceptional children.

Differentiation of Teaching Procedures

The U. S. Office of Education (29) surveyed high schools to determine the status of adaptations for slow and rapid learners and found a variety of procedures used with no standard type of program considered best for all schools. A primary purpose of this survey was to help schools study ways to improve instruction for pupils in the highest and lowest 15 to 20 percent in general intelligence. Using essentially the same procedures, Frain (19) surveyed administrative and instructional provisions for rapid and slow learners in Catholic secondary schools. With findings similar to those of the U. S. Office of Education he concluded that differences were not so much in manner as in matter of instruction.

Phases of scope, methods, and materials of reading instruction for gifted elementary-school children were investigated by Klemm (32). The emphasis in a majority of programs was on instructional practices embodied in a developmental reading program with some guidance in outside reading and remedial help for those with problems. Flournoy (17) produced a booklet on mental arithmetic and tested it with 550 pupils in 20 intermediate classrooms. The results indicated increased ability to solve problems mentally and more general acceptance of mathematics by pupils and teachers.

The development of student scientists was studied by Brandwein (7) who proposed hypotheses concerning the factors influencing high-level ability in science. McWilliams and Brown (39) reported practices in mathematics for superior junior high-school students. Gordon (22) described the provisions for outstanding science and mathematics students as detailed in the questionnaire responses from 501 teachers. Roach (51) surveyed the secondary-school mathematics and science programs for gifted students in Indiana cities and found that 46 percent had some type of special program in mathematics and 38 percent had special provisions in science.

Surveys of Programs for Gifted Students

With resurgent concern for more adequate identification and development of gifted students have come numerous surveys of existing programs and practices. French and Skogsberg (20), and Havighurst, Stivers, and DeHaan (23) described provisions for the gifted in certain schools across the nation. Examples of surveys of provisions for the education of the gifted in California public schools include those by Bowman (6), California Elementary School Administrators Association (8), and Trimble (58). Using a questionnaire to which 55.7 percent of the high schools responded, Trimble found that the majority of California secondary schools did not make special provisions for the gifted other than what is provided thru enrichment in the regular classroom.

The ways New York City schools dealt with identification, grouping, guidance, curriculum patterns, and teaching technics for bright and gifted children were described by its Bureau of Curriculum Research (42). Donovan (13) reported the curriculum provisions and organization for education of the gifted in New York City's 54 academic high schools. He indicated that, in addition to the four special schools, eight had honor schools and 42 reported having honor classes. Kravetz (34) investigated the specific provisions made for gifted children in Los Angeles City elementary schools. Examining the educational status of 973 gifted children, he found the majority assigned to grades according to their chronological age with achievement generally above their grade placement. Stedman (56) surveyed 20 colleges and universities with respect to

identification, academic programs, underachievement studies, and student personnel services for their gifted students.

Curriculum Adaptations for the Gifted

The bulk of new materials dealing with school programs for gifted students described procedures without presenting data concerning the effectiveness of these efforts. A few evaluative studies were reported, however. By means of a questionnaire to which 456 graduates of Cleveland's Major Work Program during the years 1938-1952 responded, Barbe (1) evaluated these special classes. The majority (84 percent) favored the classes with varying degrees of enthusiasm. Both male and female respondents (61 and 74 percent respectively) reported that the classes helped them in making a good adjustment. The academic performance of 23 students who entered junior high school from an enriched program in which they met in groups of eight to 10 for two 50-minute periods per week to engage in a variety of activities was compared by Dunlap (14) to that of a matched group which had not been provided similar experiences. He found that the experimental group made more effective use of their capabilities. Parker (47) reported experiments in Cedar Rapids, Iowa, schools in which the program for the elementary-school children consisted of curriculum enrichment and that for the eleventh-graders involved ability grouping for history and literature with a single teacher for two periods. Test data indicated that gifted children profited from special provisions in the two experimental programs.

Numerous methods have been used to provide for the gifted by modifying the tempo of instruction, arranging for experiences at an earlier age than normal, or decreasing the time spent on various school activities. Pressey (49) discussed basic principles and research on acceleration. Birch (2) studied 43 mentally advanced children admitted to first grade early, and Worcester (63) summarized Nebraska studies of children admitted to kindergarten approximately eight months earlier than normal. These accelerated children made satisfactory school adjustments in academic, emotional, social, and physical areas as well as or better than their later-starting peers. Justman (31) studied 95 matched pairs of Special Progress (three-year junior high-school program completed in two) and Normal Progress students in New York City high schools and found little or no difference in their academic attainments, social and personal adjustment, attitudes, or interests even tho there was a gap in their ages and years of schooling. Jones and Ortner (30) evaluated the University of Buffalo program of granting college credit by examination. Comparing the "anticipatory" group with a matched group who did not take these examinations, they found the former at no serious disadvantage, with their college grades as high and displaying greater interest in doing independent study. A study of the academic performance of veterans who

were accelerated on the basis of their scores on the General Educational Development Test reported by Bledsoe (4) indicated that they performed acceptably in subsequent courses, except in the area of natural sciences. Bonsall (5) compiled the reactions of gifted high-school students to their elementary education and found that altho many felt they had been handicapped academically and socially, the majority agreed acceleration had been beneficial to them. Wilson (62) used questionnaires to find educators' opinions about acceleration of gifted students. The 749 returns from a wide sampling of school and college administrators indicated lack of agreement among the educators as to whether gifted children should be promoted sufficiently to permit college entrance by age 16 or 17.

The Fund for the Advancement of Education (21) sponsored several studies involving admission to college with advanced standing, early admission to college, and reduction of the conventional eight-year school and college program to seven. A progress report on these three projects and the Gifted Child Project of the Portland, Oregon, Public Schools appeared in 1953.

Programs and Provisions for the Mentally Retarded

A survey of the major problems affecting the education of the mentally retarded in both public day and residential schools was conducted by Cassell (10) thru an open-end questionnaire to 185 selected administrators. Shortage of trained personnel, need for greater public understanding, and inadequate classroom space and facilities were among the problems most frequently mentioned. The National Association for Retarded Children (41) reported on day classes for severely retarded children; an investigation of the types of special education programs and facilities provided by state and local communities was conducted by the New York State Mental Health Commission (46).

Blatt (3) compared the physical, personality, and academic status of mentally retarded children attending special classes with those attending regular classes and found that the retarded in both situations were less able physically and had a greater degree of personality maladjustment than typical children. Teachers of special classes appeared to have greater acceptance of the retarded than regular-class teachers. Weiner (61) studied the final academic achievement of 37 mentally handicapped boys who had been enrolled in a pre-academic program for two years, three months. The results indicated that the benefits of the pre-academic program were obtained without loss in final academic status. Snyder and De Prospo (55) found a marked growth in social maturity of mentally retarded children in a wide-age-range class during a summer demonstration program. Ingram and Popp (28) described the plan for mentally retarded in Flint, Michigan, schools and reported the children's progress during

its first year of operation. The favorable results of a pilot program for trainable mentally retarded children were reported by Rosenzweig (53).

Programs for Other Exceptional Children

Much of the research dealing with exceptional children focused on their characteristics, their development, and the special problems they face. While there are valuable implications in these studies for the curriculum worker, there is a relative dearth of research dealing with tests of educational programs and provisions for exceptional children. New York City's Bureau of Educational Research (43, 44) studied the intelligence, achievement, certain aspects of behavior and adjustment, and the educational history of sixth-, seventh-, and eighth-graders with cardiac limitations and of fifth- and eighth-graders with orthopedic limitations. Using observers and checklists, the Bureau surveyed classroom practices and suggested modifications in curriculum and instruction. Enright (16) reported data describing provisions for the education of blind children in California public schools. General agreement on the success of the cerebral palsy program instituted in 1950 was reported by the Committee on Education of the Coordinating Council for Cerebral Palsy in New York City (12). The committee also surveyed schools in 29 other cities for the types of educational provisions made for children with cerebral palsy.

Hopkins, Bice, and Colton (26) described the work in the academic department of a public day school for children with cerebral palsy. A comprehensive study of 765 epileptic children and the special program provided by Detroit Public Schools was made by Tenny (57). Wallace, Slater, and Steinberg (59) described pupil progress in classes for cerebral palsy in four New York City units. Experiences over a five-month period in teaching a group of 13 emotionally disturbed boys were described in case study form by Kornberg (33).

Campbell (9) reported the value for both blind and sighted children of nonsegregated classes in Temple City, California. Teaching in the classroom was supplemented by special instruction suited to the individual child's handicap. An experiment in which 10 fourth-grade acoustically handicapped children, selected on the basis of high intelligence, were integrated with 25 hearing children was undertaken by New York City's Bureau of Educational Research (45). Altho both groups did as well as or better than would be expected of children of their ability, true integration did not occur. The social and self-perceived statuses of physically handicapped and normal children in integrated elementary classrooms were studied by Force (18). He found that the physically handicapped children long for acceptance but are not as well accepted by normal children; he concluded that psychological integration is not attained by mere presence in the classroom.

Grouping Practices in School Programs

Eales, Reed, and Wilson (15) surveyed the grouping practices in 42 secondary schools of Los Angeles County and found that 36 used some kind of ability grouping. The investigators noted a marked increase in classes for mentally retarded and, to a lesser extent, for gifted. Severson (54) studied the effects of ability grouping on a variety of factors involved in academic achievement and personal-social development of junior high-school pupils and concluded that purposeful grouping was a desirable educational practice. Holmes and Harvey (24) compared two methods of grouping, permanent and flexible, in terms of their effects on arithmetic achievement and found few significant differences in learnings or attitudes. They suggested that rather than to argue unproductively that one method is better than another, each teacher should analyze his own class and make provisions for differences in ways which will best meet his needs. Comparing the achievement of a group selected on the basis of high intelligence with another chosen on the basis of high interest in language arts, and finding that the latter exceeded the former, Lazarus (35) concluded that grouping by interest at the secondary-school level was sound. Hoover (25) examined the effects of differentiated teaching according to student ability by comparing the attainments of two classes specially grouped and seated with a third class similarly classified but not seated in groups. The first two groups increased scholastic averages, seemed to avoid being stigmatized by grouping, and displayed a greater sense of belonging when working with individuals of similar academic capacities. Ramey (50) reported that there was almost complete overlapping from one ability group to another, but that teachers tended to generalize and teach according to their perceptions of the homogeneity of the group and neglected the wide inherent ranges in any group.

Hosley (27) compared the learning outcomes of sixth-grade pupils in a school having Grades VI, VII, and VIII and those in a Kindergarten-Grade VI school and found no significant differences under these alternate organization patterns. Lorge and Mayans (36) examined the achievement of migrant Puerto Rican pupils and found that challenging them to understand in a regular classroom had marked advantages over separating them into vestibule classes both for English mastery and for personal adjustment. Mann (40) analyzed the social status of gifted children in a program of partial segregation and found that altho these children mingled with others in the report room for half the school day, they did not actually develop real friendships with their average classmates.

Promotion Practices in Schools

Wallihan (60) found no discernible evidence of improvement in reading occurring as a result of nonpromotion in primary grades. Coffield (11) conducted a longitudinal study of the effects of nonpromotion on edu-

cational achievement of pupils in the seventh grade who had repeated a grade during elementary years and found that altho there were educational gains, repetition did not bring students up to grade norms. Coffield found no significant differences in general level or variability of seventh-grade achievement between schools having high and low rates of non-promotion. Rocchio and Kearney (52) studied the relationships between teacher-pupil attitudes as measured by the Minnesota Teacher Attitude Inventory and nonpromotion rates of high-school teachers.

Summary

Despite the relative paucity of research dealing with provisions for individual differences compared with the total volume of writings, a steady increase does seem apparent. Numerous approaches have been used. For example, the U. S. Office of Education (37, 38) in studies dealing with the qualifications and preparation of teachers of exceptional children pointed out competencies and experiences needed for proficiency in providing adequately for these children. Many kinds of research are needed at all levels, particularly in testing the effectiveness of various instructional adaptations and modifications. In the area of the gifted, for example, Passow and others (48) summarized research and literature and raised questions for consideration and research by school faculties. It is at the level of the classroom teacher and building unit that quality research is presently most needed. Because of the relative newness of special programs for all types of exceptional children, philosophy, theory, content, and procedures will have to be developed and clarified.

From the combination of accumulated literature with available research, these emphases seem to be emerging as promising trends in curriculum adaptations for individual differences: (a) acceptance by schools of the responsibility for development of exceptional children of all kinds and extension of services from preschool thru secondary level; (b) readiness to re-examine the possibilities of administrative modifications which were formerly summarily dismissed on the basis of earlier writings; (c) willingness to explore and use a variety of provisions and technics, rather than rely on a single program for all; (d) exploration of various means for integrating provisions for exceptional children into the regular program; and (e) involvement of more members of the professional staff in program development in an attempt to build sequential articulation of programs.

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CHAPTER VI

Organization for Curriculum Development

HUBERT M. EVANS

THE scope of this chapter is limited to those published studies and reports which in one way or another deal with plans, procedures, methods, and technics for carrying forward programs for curriculum development. For the most part the studies are reported in terms of staff organization, leadership problems, teacher participation, personnel training, or some combination of these important aspects of curriculum improvement. An occasional study devotes major attention to lay participation and less often, to students. Evidenced in most of the studies reviewed is a major concern for the effective organization and training of professional and lay personnel in order that certain objectives related to curriculum reform may be achieved. This continues a trend noted, among others, by Passow (36) and is reflected in recent comprehensive textbooks on the curriculum (6, 46).

Organization and Procedures for Curriculum Development

The newer patterns of organization and procedures with their emphasis on decentralization, wide participation, and a grass-roots philosophy characterize practically all systematic efforts at curriculum reform. The notion that changing the curriculum means changing people has apparently taken firm root in the thinking of educators; differences appear only in how people are to be changed. Group work under various guises and the group process are almost universally advocated as effective methods for changing people and thus the curriculum. Gold (15) advocated the group process as a means for curriculum building and laid down some guiding principles including participation and learning by doing. Thelen (51) suggested that working groups formed by voluntary action were one of the essential conditions for effective curriculum development and that evaluation should include a systematic study of the process of working together. Arguments for cooperative action on curriculum problems were advanced by Ragan (39), and Fromm (13) reported a systemwide organization of a hierarchy of groupings as a way to organize and focus efforts on curriculum reform. A thoroughgoing cooperative approach to curriculum planning in a large city school system was described by Adams (1) as a way to promote group thinking and mature individuality and to secure unique contributions.

Systemwide and local-school programs for curriculum improvement seem to be assuming a more or less common pattern built on group work, powered by common concerns, and steered by indigenous leadership. In many studies there is a marked sensitivity to the individual school and the teacher. French (12) stressed the importance of shifting major responsibility for curriculum development to the individual school along with the necessary initiative and autonomy. A plan for using certain teachers part time as leaders in curriculum development was reported by Redford (41). Smith (47) described the organization of one school for curriculum improvement and pointed out methods for relating it to the total school system. Prasch (38) related how one school, by means of staff committees and departmental groups, carried thru a three-year study leading to the development of a new senior high-school curriculum. Provision for substitute teachers to release regular teachers and additional compensation for work beyond normal expectations were features of a systemwide curriculum project reported by Marshall (30). Wider use of departmental chairmen in curriculum development programs was urged by Gruman (17). The always difficult task of channeling research findings into school and classroom practices was reviewed by Russell and Parker (45). They recommended that teachers be helped to gain insight into different types of research, that the staff be so organized that research influences curriculum development, that action research be encouraged, and that universities and teacher education institutions expand their inservice offerings designed to encourage research and research competence. Young (54) described how one state developed a comprehensive plan for curriculum improvement. Methods and technics employed included advisory committees, workshops, consultant services, and technical assistance to teachers and schools.

Parents and other lay citizens are often included as working participants in curriculum reform programs. A sizable portion of the *Fifty-Third Yearbook of the National Society for the Study of Education* (32) was devoted to lay participation in curriculum improvement with many case histories of local community effort. Rawlings (40) reported a study of teacher and student opinions of their school curriculum; the study was designed and carried out by a committee of parents, teachers, and central office personnel and subsequently led to an action program. A plan for encouraging parent participation in the solution of school problems by means of small group meetings focused on problems of immediate interest to parents was described by Lloyd (27). The creation of a parents advisory curriculum council in a systemwide project involving teachers, parents, pupils, and central office personnel was reported by Ahrens (2).

Less attention is generally paid to the evaluation of plans, procedures, and organization of curriculum reform programs than one would normally expect. Thomas (52) developed criteria for a balanced program of curriculum development and applied them systematically in a study of a small school system by means of questionnaires, interviews, direct

observations, and studies of time use. Akers (3), using questionnaires and interviews, evaluated the curriculum improvement program in a suburban community and concluded that (a) greater emphasis should be placed on the scientific method of problem solving and action research, (b) increased efforts should be made to involve students, (c) a continuous attempt should be made to clarify philosophy, and (d) there should be more trained personnel available to aid teachers. Young (54) in his report of a statewide curriculum program warned that teachers should not be plunged into the solution of a curriculum problem without adequate preparation.

As an end-piece to this section we may take note of an interesting study by Harap and Merritt (19) on the status of curriculum guides and another by Nault (33) on the effectiveness of such guides. Harap and Merritt found an increase in the number of guides published in one form or another as compared with previous studies, a growing emphasis on cooperative production of guides, and a definite tendency away from prescription to suggestion. Nault determined that the larger the number of teachers involved in the preparation of curriculum materials, the greater the probability that such materials will be used in classroom teaching.

Status Leadership and Curriculum Improvement

The many-sided and complicated problem of adequate leadership for curriculum improvement programs continues to be a major concern of educators. Rehage (42) made an interim report of the activities of the Midwest Cooperative Program in Educational Administration in which he described a comprehensive study now under way focused on exploring the roles and responsibilities of status leaders. Stressing the responsibility of the superintendent for curriculum revision, Ostrander (34) defined certain characteristics which the modern school superintendent should possess in terms of abilities, insights, vision, and zeal. Emphasizing that the school principal is a key person in curriculum revision programs, Spalding (48) advocated that the school principal encourage the attitude of inquiry among his staff, provide security and recognition for those who attempt change, provide time and facilities for curriculum work, and aid in the evaluation of the consequences of any changes undertaken. Hand (18) laid down a basic strategy and tactics for principals to follow in developing a curriculum improvement program. Asserting that the secondary-school principal must ultimately be responsible for leadership in any curriculum change in his school, Broadway (8) outlined the tasks which a principal must undertake to discharge this responsibility adequately. Pinckney (37) and Robinson (43) listed methods and techniques which a principal could use in developing a program for curriculum reform. The work of a curriculum commission set up by a state principals association was described by Hearn (20).

Status leaders other than principals and superintendents received attention during the period under review. Gordon and Hoppock (16) described a cooperative research workshop designed to increase the effectiveness of curriculum coordinators and supervisors. Defining action research as a technic for supervision, Taba and others (50) developed an inservice program for leadership training for those who work with teachers. Central in this program were systematic experiences with the solution of problems in school situations. The basic importance of consistency of behavior on the part of a curriculum coordinator in his relations with his co-workers was pointed out by Hetland (22). Working as a college seminar under the direction of Mackenzie (29) a graduate student group developed a report on the role of the curriculum coordinator in selected schools. Rowland (44) developed an argument for wider use of the guidance counselor in curriculum improvement. Seeking to determine the influences which produce the diversity of interpretation of the role of the curriculum director, Connolly (9) found these influences most significant: (a) the beliefs and understandings of both the director of curriculum and the superintendent as to the nature of curriculum change, (b) the effectiveness of the organization for curriculum change, (c) the attitude of the community and schoolboard toward curriculum reform, (d) the size of the school system, and (e) the recency of the establishment of the position of curriculum director.

The Teacher and Curriculum Development

No one has yet devised a plan for changing the school curriculum without trespassing on ground occupied by the classroom teacher. This being the case, it is understandable that the teacher is so frequently a central concern in studies of curriculum development. Urging that the entire faculty of a school be responsible for basic curriculum planning, Amend (5) reported the procedures developed by a high-school staff to bring about significant changes in the total curriculum. Hughes and others (24) described an action research curriculum project involving teachers working within a county framework. Cooperative decision making, maximum use of the talents of participants, and freedom to make decisions, cooperatively determined, were stated by Parton and Whitson (35) as necessary conditions for effective faculty action on curriculum problems. Self-evaluation of the school program was advocated by Lewis (26) as an approach to curriculum change. Basing evaluation on an analysis of student diaries taken at the beginning and end of the school year and on an analysis of questionnaire and inventory studies of teachers' attitudes, he found that working relations among teachers and their understanding of children were improved and that a better program of education for children was secured. Fullagar (14) reviewed some of the difficulties commonly encountered in promoting effective teacher participation in curriculum development programs, and Erickson (10)

summarized the major features of an inservice program for improving the competence and versatility of classroom teachers with respect to curriculum problems. Misner (31) reviewed basic principles underlying an effective teacher-citizen cooperative attack on school problems. Hoppe (23) described ways in which students may participate in curriculum revision with the warning that to provide opportunities for students to take part in curriculum planning requires responsible response to what they say and do.

In a university seminar setting, Alexander and others (4) developed a training program for teachers and other educators based on experiences with cooperative research on actual problems in school situations. Herrick and Estvan (21) reviewed four areas of curriculum research in which the teacher should be active and went on to suggest how research procedures could be applied by the classroom teacher to curriculum problems. Pointing out the need to establish more effective working relations between the teacher and the specialist, McCuskey and Conaway (28) advocated the interdisciplinary approach to solution of curriculum problems. Fleming (11) stressed local research activities as the key to the selection of curriculum content and suggested methods by which the teacher could assess pupil academic needs, interests, attitudes, values, emotional needs, skill in critical thinking, and other relevant matters as an approach to the selection of teaching content and materials.

Teacher attitudes toward curriculum change and toward status leaders, and extent of participation are important areas for research. In a study involving 285 subjects, Jensen (25) found that teachers expected the status leaders to furnish the leadership necessary for the development of a guiding philosophy, and the same teachers indicated that they were willing to move in directions suggested by competent leadership. Stuckey (49) investigated the extent of teacher participation in a two-year curriculum study in a junior high school and found that nearly 70 percent were active in the program and the remaining teachers sympathetically kept up with what was done. Using a flexible interview technic, West (53) determined eight crucial points at which teachers and status leaders had different understandings regarding the quality of human relations in cooperative working situations. And Banning (7) in a study involving 65 junior high-school teachers found that such factors as a sensed contribution to the school program, a meaningful share in policy decisions, harmonious relationships with students, and participation in the life of the school's community were more potent in determining attitudes toward curriculum change than teaching load, subject or grade taught, or other mechanical conditions.

Summary

The contribution of the studies reviewed in this chapter to the research process or to the stock of research findings leaves something to be de-

sired as Passow also concluded in a previous review (36). This is to be expected as the whole field of curriculum research is still in the natural history stage of development as a behavioral or social science. There is yet no clean break-thru to a firmer research base for making decisions and planning organizational operations. A substantial body of experience with curriculum problems has been accumulated, and in this sense the studies reviewed made a contribution to further progress. Worthy and necessary as they are, however, they should be viewed as an evolutionary beginning, a prelude to the major work yet to be accomplished. The exploring, the quasi-research, the soul-searching so evident in the studies reported did produce some leads, some insights, and some additional empirical evidence. But it is difficult to avoid uneasy feelings about some important matters.

A major source of uneasiness can be traced to the premises and the assumptions which underlie or give direction to many of the studies reviewed in this chapter. The doctrine of the individual school as the most efficient working unit for curriculum reform is frequently advanced. What evidence is available to support this assumption? What is the quality of the evidence advanced? To what extent is such evidence derived from rigorously controlled research situations? The line-and-staff principle of organization in curriculum change is apparently on its way out or at least in a process of considerable modification. What new principle of organization is to take its place? Are principles derived from group process ideology to take over? If so, how are these new principles to be tested for their effectiveness in giving direction to organization for curriculum reform? The statement, "To change the curriculum is to change people"—so easy to recite and so difficult to understand—is frequently argued as a valid assumption and as a necessary guide to curriculum change. What does this premise mean in operational terms? How may principles derived from this premise be tested adequately in school situations?

It is obvious that the assumptions and premises cited above are cut from the same piece of cloth. To cite the examples, however, is not to object but to point out the danger of converting a promising hypothesis or premise into a bit of educational dogma. It is not the business of educational research to add more dogma to the already overburdened educational enterprise.

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CHAPTER VII

Research and Evaluation in Curriculum Planning

ROBERT S. FLEMING

THE past few years saw a marked interest in research. A variety of materials appeared which represent attempts on the part of educators to make existing research available and to stimulate increased research activity.

Activities in the curriculum field were varied, and perhaps exceedingly slow. It is significant that the period reviewed has not produced a major national or regional curriculum research project. Coladarci, Brooks, and Odel (17), in a study of research priorities, found that administrators over the country reported marked concern over curriculum problems and indicated that they deserve priority for research.

Research in Curriculum Planning

As one analyzes recent research in curriculum planning, one sees that its most striking emphasis relates it to basic sciences which deal with human behavior. Hovet (38) indicated that curriculum research is distinctive in that it is the work of studying systematically the conditions under which changes in human behavior occur. Chase (15) suggested that research findings must be assimilated into the central nervous system of the person before they can become effective. DeLong (20) described several trends in the literature on learning that gave evidence of the acceptance of a new frame of reference in this field. The focus seemed to shift to the learner and to related patterns.

Another emerging emphasis in curriculum research related to the study of special groups of children. Passow (57) described a series of studies. The U. S. Office of Education (71) initiated as major projects studies which dealt with the mentally handicapped and with retention and continuation of students in school. Such studies are of marked interest and relate directly to problems of grouping which urgently need systematic inquiry.

A growing development in curriculum research related to the participation of teachers in the research process. There appeared to be emerging in the literature "case studies" of efforts to improve. Beach (9), Parkin (56), Helfant (35), and others reported that teachers tried out scores of practices and made efforts to use such activities for modifying their work. Hand (33) and Johnson, Sanford, and Hand (40) dealt with ways of organizing for curriculum improvement. They sought answers to

local-school problems thru cooperative efforts by teachers, parents, pupils, and others. Traxler (68) stated that research must become a part of education rather than be carried out *for* education. *Group Studies in the Elementary Grades of the Ohio State University School* (54) described work of the elementary-school faculty of the University School at Ohio State University. Perkins (58) discussed teacher participation in descriptive research. A plea was made by Carpenter (14) for more descriptive research in education to include both materials and phenomena under investigation.

Research itself was helpful in pointing to curriculum change. Russell and Parker (63) indicated that significant findings in many areas contribute to curriculum change, including research on learning, working with groups, instructional materials, and other topics. Fleming (26) described a variety of procedures which might provide evidence for the selection of curriculum content. Many of the procedures were used to identify problems of individuals and communities. Raths (59) analyzed the role of evaluation in research design. Rehage (60) extended this idea by placing emphasis on "evidence" as a basis for making instructional decisions. Such evidence comes from data about students, data about the community, characteristics of the general culture in which young people are to live, bodies of knowledge upon which the school plans its program, and from knowledge regarding the conditions under which learning occurs.

Illustrative of efforts made to enable teachers to use research was the work of Hansen (34) in which practical methods of collecting and using evidence were described. Bebell (10) related the research process to teaching. Alexander and others (1) described a series of examples of studies teachers made as they secured help in university seminars.

Impressive work was carried out during the past few years in focusing research on the teaching of specific subject fields. Perhaps the most extensive of these was the publication of the Association for Supervision and Curriculum Development, *Research Helps in Teaching the Language Arts* (6).

A series of publications prepared by the American Educational Research Association had a similar focus. These bulletins appeared under the series title, "What Research Says to the Teacher." Barnard's *Teaching High-School Science* (7) is illustrative. Others appeared in various subject areas. One issue of this REVIEW (2) was devoted to a review of research which included much material on research important in curriculum planning. The new yearbook of the National Society for the Study of Education, *Social Studies in the Elementary School* (52), related the social studies to the current social scene, to knowledge about children and how they learn, and to evaluation as well as to the role of the social studies in the total elementary-school program.

Action Research

A case seems to be emerging to support the generalization that the unique trend in curriculum research of the past few years emphasizes research for school improvement. Moore and Stendler (50) made a thoughtful analysis of action research. By way of criticism they suggested that evidence obtained from action research tends to be scanty and unreliable, that action research assumes that we have answers to most of the questions, and that problems of perception and motivation are oversimplified.

The study of Foshay and others (27) illustrated the way in which teachers adapt research methods to classroom use. Mackenzie and Corey (47) described a cooperative study carried on in Denver; emphasis was placed on improving the effectiveness of leadership. Brandt and Perkins (12) summarized a series of studies carried out by the Institute for Child Study under Prescott's direction. Hughes and others (39) reported on a cooperative action research study carried out in a system-wide manner in Utah. Barnes (8) illustrated an action study of a different type in the writing of textbook materials describing local resources and history.

In Anderson's opinion action research (3) was the single most significant development as a technic for curriculum improvement in the last decade. He also gave attention to the "impotency" of curriculum research and to the characteristics of action research.

A unique feature of the 1957 Yearbook of the Association for Supervision and Curriculum Development was the "Bibliography on Curriculum Research" prepared by Larson (44). This unusual bibliography is illustrative of attempts to stimulate and assist teachers and curriculum workers with a research approach to school improvement.

Recent activities in the curriculum field tend to place increasing emphasis on human relations as a vital factor in curriculum improvement. Miles and Corey (48) related human relations factors to institutional dynamics. The authors examined a series of organizational roles and their effects on research as well as on internal problems faced by research groups. Miles and Passow (49) developed a concept of training which seeks to produce skills needed for inservice education of teachers.

Evaluation Contributes to Research and School Improvement

Inherent in the process of curriculum research is a functional conception of evaluation. Doubtless, efforts to separate curriculum research and evaluation are futile. The past few years brought a variety of articles and reports in which the process of evaluation was considered. The 1954 Yearbook of the Association for Supervision and Curriculum Development (4) devoted a chapter to the role of evaluation in the learning

environment. A conception of evaluation is illustrated and described in which evaluation becomes an active process associated with valuing, clarifying purposes, and hypothesis making, carried on in a cooperative, continuous manner. Fleck (25) developed a similar concept and focused it upon a re-examination of present practices. A provocative chapter by Herrick (36) in a current yearbook described the nature of the evaluative process and applied it to changes in inservice education. Wright (72) summarized 80 unpublished studies of core programs; several of the studies dealt with evaluation.

An optimistic note was the continued emphasis on the need for clarification of educational goals which are basic to the evaluation process. Shaftel (64) made the point that as we are able to share specialists from other fields with teachers, we generate even better educational goals. Herrick and Estvan (37) stated four problems in the area of educational objectives and suggested ways of studying the latter. Gates (30) reported that a shift occurred in objectives; they were related less to individual subjects and more to the total school program. Future studies will no doubt explore this shift and concentrate on the learning process and on deeper motivations that affect the learning of children and youth. Tyler (70) focused attention on the ways a school accomplishes its purposes, indicating that appraisal both of process and product is necessary if improvement in evaluation is to occur. Devitt (21) emphasized that the process of evaluation should be focused on school improvement.

A major trend was the increasing number of evaluations of school-wide programs. Typical of many efforts in this area was the work of Lewis (45) in Minneapolis which placed major emphasis on the uses of self-evaluation as a basis for curriculum improvement.

A case study in evaluation is included in the Fifty-Sixth Yearbook of the National Society for the Study of Education (52) in which the social studies program of the Denver city schools was described (53). Otto (55) devoted a chapter to "Evaluation of Social Learning" in which interesting technics were described for measuring aspects of social development.

The work of the Southern Association of Colleges and Secondary Schools continued to focus attention on a cooperative approach in school evaluation. *Looking at Your School* (65) attempted to assist a local faculty in the use of a systematic plan for evaluating the elementary school.

Perhaps one of the most urgent needs in the entire area of evaluation is for the clarification of ways of describing pupil progress. The use of the Carnegie unit is also a part of this problem. Tompkins and Gaumnitz (66) discussed the status of the Carnegie unit; the study illustrated the clear-cut relationship between evaluation, curriculum accreditation, and secondary school-college articulation.

Besides increasing attention to educational programs, there were other important developments in evaluation. Brueckner and Bond (13) placed emphasis on specific procedures teachers can use in diagnosing learning difficulties. According to Findley (24) trends in the measurement

of achievement suggested that tests were being used increasingly to measure growth and development rather than status and that emphasis was being placed on application of knowledge and the evaluation of problem solving. Traxler (69) and Hall (32) pointed toward the use of tests in planning differentiated instruction.

Interestingly enough, DeLong (19) found behavior of children during testing different from their behavior in the classroom at other times. Ludeman (46) suggested a re-examination of testing and evaluation practices. Travis and Umstated (67) advocated a cooperative approach in which students and teachers share in planning and evaluation. Diederich (22) cautioned professional workers concerning pitfalls in the measurement of achievement and suggested the necessity of norms for gains as well as for status. Kooker and Williams (42) pointed to the need for more efficient evaluation rather than for rigid standards.

Mouton, Blake, and Fruchter (51) found that certain sociometric measures are reliable and merit more intensive analysis as a basis for predicting performance. Krugman (43) recommended increased use of projective technics.

One of the unique developments in new tests was the *Sequential Tests of Educational Progress* (23) developed by the Educational Testing Service. Critical skills in the application of learning are measured from the fourth grade thru the sophomore year of college.

The topic of reporting pupil progress continues to occupy a prominent place in educational literature. Rothney (62) developed a simple analysis of research in the area. His attention to new reporting procedures needed gave some direction to future research. *Reporting Is Communicating* (5) was issued by the Association for Supervision and Curriculum Development; emphasis was given to guiding principles in reporting pupil progress and to specific procedures for collecting needed evidence about children. Gabbard and Lewis (29) analyzed material from 70 school systems; here again the concept of communicating with parents was emphasized. Roelfs (61) developed an extensive list of trends in reporting practices in junior high schools.

Research on promotion continued, as illustrated by Coffield and Blommers (16) and Goodlad (31). By and large it appears that retention in a grade does not result in increased performance and that, in general, children should be promoted.

During recent years statewide testing programs were revised, possibly in part because the expanding conception of school objectives emphasized the limited uses of test results. Accompanying this trend was a growing emphasis on statewide programs of evaluation and curriculum improvement, as described by Frick and Moorer (28) and Berdie (11).

One of the most interesting developments was that of systemwide evaluation. Davis (18) and Kennedy (41) reported on this work. The Southern Association of Colleges and Secondary Schools sponsored a series

of studies in which all schools in a system participated. Interestingly enough, these studies were based on efforts within a system to bring about improvement. Essentially, this then creates a setting for local criteria to emerge and for the major concern to be that of bringing about continued improvement.

Summary

There seems to be limited systematic inquiry on vital problems and issues. There is almost a frightening scarcity of research in curriculum. There are important gaps in recent literature dealing with curriculum theory. We still have few examples and studies of valuing, thinking, and creativity. We still need case studies on ways of translating a pupil's problems and needs into curriculum experiences.

The philosophical concept of action research seems sound, yet there appears to be little evidence in the literature of actual accounts of such work and appraisals of effectiveness. Altho the tendency for teachers to participate in research activities should be encouraged, leaders must make sure that systematic, careful, objective procedures are used. Extensive evaluations of such efforts must be carried on. Efforts at inservice education must not be confused with research. New relationships among colleges, state departments of education, and school systems should be clarified.

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